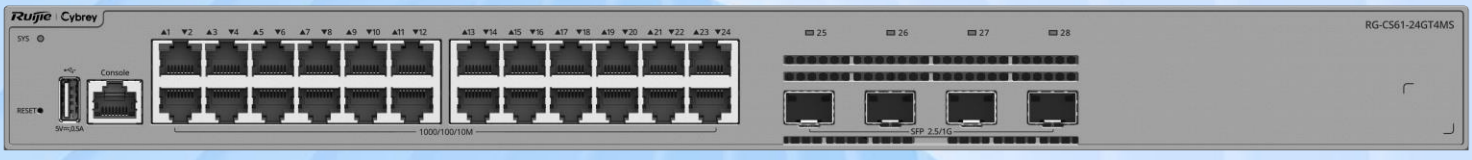
Ruijie | Cybrey



RG-CS61 Series

Datasheet

RG-CS61 Series Datasheet

Overview

The RG-CS61 series are next-generation cost-effective Layer 3 access switches released by Ruijie Cybrey for small and medium-sized enterprises. The switch series include PoE and non-PoE product models, meeting requirements of wired networks, wireless networks, CCTV, and other scenarios.

Features

Uplink 2.5GE Ports: The uplink ports support a data rate of 2.5 Gbps. Compared with traditional 1GE uplinks, they enable more clients to be connected in scenarios such as high-definition video surveillance, while providing improved capability to handle burst traffic.

Virtual Switch Unit (VSU): The switch series supports the VSU technology to virtualize up to eight physical devices into one logical device, enabling flexible and simplified network deployment and management.

Layer 3 Protocols: The switch series supports multiple Layer 3 routing protocols, including OSPF and RIP, as well as multicast capabilities, providing flexible network interconnection and service delivery capabilities.

Strong Surge Protection Capability: All RJ45 ports on this switch series provide up to 10 kV surge protection. This effectively reduces the risk of surge-induced port damage and improves network stability.

Hardware-level Startup Redundancy: The switch series uses two flash memory chips to store the startup software (bootloader), achieving hardware-level startup redundancy and preventing a startup failure due to the fault of a single flash memory chip.

High Reliability: By supporting Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), along with Rapid Link Detection Protocol (RLDP), CPU Protection Policy (CPP), and Network Foundation Protection Policy (NFPP), the switch series effectively prevents loops and attacks, ensuring high network availability.

Quietness and Green Energy Saving: The switch series adopts the fanless design (for some models) or intelligent variable-speed fan modules, and supports Energy Efficient Ethernet (EEE). It can enter energy-saving mode based on port traffic status, enabling quiet operation and energy efficiency.

Flexible Device Management Modes: Administrators can manage and maintain the switch series using Ruijie Reyee App, CLI, web-based management, SNMP, and other methods.

Hardware Specification

Port Specifications

Port Specifications	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Fixed service port	10 x 10/100/1000BASE-T ports (ports 1 to 8 support PoE/PoE+) 2 x 1GE/2.5GE SFP ports	24 x 10/100/1000BASE-T ports 4 x 1GE/2.5GE SFP ports	24 x 10/100/1000BASE-T ports (all ports support PoE/PoE+) 4 x 1GE/2.5GE SFP ports	48 x 10/100/1000BASE-T ports (all ports support PoE/PoE+) 4 x 1GE/2.5GE SFP ports
Console port	1	1	1	1
USB port	1	1	1	1

System Specifications

System Specifications	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Switching capacity	30Gbps (Gbit/s)	68Gbps (Gbit/s)	68Gbps (Gbit/s)	116Gbps (Gbit/s)
Packet forwarding rate	22.32 Mpps	50.592 Mpps	50.592 Mpps	86.304 Mpps
CPU	Dual-core ARM A55 CPU frequency up to 1.0 GHz	Dual-core ARM A55 CPU frequency up to 1.0 GHz	Dual-core ARM A55 CPU frequency up to 1.0 GHz	Dual-core ARM A55 CPU frequency up to 1.0 GHz
Bootrom	16 MB	16 MB	16 MB	16 MB
Flash Memory	512 MB	512 MB	512 MB	512 MB
SDRAM	2 GB	2 GB	2 GB	2 GB
Switch buffer	12 Mbit	12 Mbit	12 Mbit	12 Mbit

Dimensions and Weight

Dimensions and Weight	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Product dimensions (W x D x H)	298mm x 224mm x 43.6mm	442mm x 220mm x 43.6mm	442mm x 220mm x 43.6mm	442mm x 260mm x 43.6mm
Rack height	1 RU	1 RU	1 RU	1 RU

Power Supply and Consumption

Power Supply and Consumption	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Power supply	1 x fixed power supply	1 x fixed power supply	1 x fixed power supply	1 x fixed power supply
Power input	AC input • Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz • Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz • Maximum input current: 3.5 A	AC input • Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz • Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz • Maximum input current: 0.6 A	AC input • Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz • Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz • Maximum input current: 6 A	AC input • Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz • Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz • Maximum input current: 6 A
PoE	Supported	N/A	Supported	Supported
PoE budget per port	30 W	N/A	30 W	30 W
PoE budget	125 W	N/A	370 W	370 W
Maximum power consumption	TBD	TBD	TBD	TBD

Environment and Reliability

Environment and Reliability	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Hot swapping of cables	Supported	Supported	Supported	Supported
Heat dissipation	Natural cooling	Natural cooling	Air cooling, left-to-right airflow	Air cooling, left-to-rear airflow
Fan	Fanless design	Fanless design	1 x fixed fan	2 x fixed fans
Surge protection	Service port: ±10 kV for common mode Power connector: ±6 kV for common mode and ±6 kV for differential mode	Service port: ±10 kV for common mode Power connector: ±6 kV for common mode and ±6 kV for differential mode	Service port: ±10 kV for common mode Power connector: ±6 kV for common mode and ±6 kV for differential mode	Service port: ±10 kV for common mode Power connector: ±6 kV for common mode and ±6 kV for differential mode
ESD	Contact discharge: 6 kV Air discharge: 8 kV	Contact discharge: 6 kV Air discharge: 8 kV	Contact discharge: 6 kV Air discharge: 8 kV	Contact discharge: 6 kV Air discharge: 8 kV
Temperature monitoring and protection	Temperature monitoring, temperature alarm, and over temperature protection	Temperature monitoring, temperature alarm, and over temperature protection	Temperature monitoring, temperature alarm, and over temperature protection	Temperature monitoring, temperature alarm, and over temperature protection
Fan monitoring	N/A	N/A	Fan failure alarming	Fan failure alarming
Energy saving	Supported	Supported	Supported	Supported
Acoustic noise	N/A	N/A	27°C (80.6°F) < 40 dB	27°C (80.6°F) < 40 dB
Operating temperature	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)

Storage temperature	-40°C to +70°C (40°F to +158°F)	-40°C to +70°C (40°F to +158°F)	-40°C to +70°C (40°F to +158°F)	-40°C to +70°C (40°F to +158°F)
Operating humidity	10% RH to 90% RH (non-condensing)	10% RH to 90% RH (non-condensing)	10% RH to 90% RH (non-condensing)	10% RH to 90% RH (non-condensing)
Storage humidity	5% RH to 95% RH (non-condensing)	5% RH to 95% RH (non-condensing)	5% RH to 95% RH (non-condensing)	5% RH to 95% RH (non-condensing)
Operating altitude	0 m to 5,000 m (0 ft. to 16,404.20 ft.)	0 m to 5,000 m (0 ft. to 16,404.20 ft.)	0 m to 5,000 m (0 ft. to 16,404.20 ft.)	0 m to 5,000 m (0 ft. to 16,404.20 ft.)
MTBF	TBD	TBD	TBD	TBD

Software Specification

ACL and QoS

ACL and QoS	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
ACL	• ACL80 • ACL-based redirection • IPv6 ACL • Standard ACL • Extended IP ACL • Extended MAC ACL • Extended time range-based ACL • Extended expert ACL			
QoS	• Congestion Avoidance (Tail Drop) • DRR • SP • SP+DRR • SP+WFQ • SP+WRR • WFQ • WRR • Inbound or outbound rate limiting based on interface traffic			

Interface Features

Interface Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Aggregate Port	LACP			
Mirror	RSPAN			

Layer 2 Features

Layer 2 Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
VLAN	• Voice VLAN • GVRP • IP-Subnet based VLAN • MAC VLAN • Port based VLAN • Private VLAN • Protocol based VLAN Super VLAN			
Basic QinQ	Supported			
LLDP	• LLDP • LLDP-MED			
Spanning Tree	• IEEE802.1d STP • IEEE802.1w RSTP • standard 802.1s MSTP			

Layer 3 Features

Layer 3 Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
ARP	anyIP			
ND	Neighbor Discovery			

VRF	IPv4 and IPv6 VRF

IP Application Protocol Features

IP Application Protocol Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
DHCPv4 Client	Supported			
DHCPv4 Relay	Supported			
DHCPv4 Server	Supported			
DHCPv4 Snooping	Supported			
DHCPv6 Client	Supported			
DHCPv6 Relay	Supported			
DHCPv6 Snooping	Supported			
DNS Client	Supported			
DNSv6 Client	Supported			
FTP	• FTP Client • FTP Server			
ND Snooping	Supported			
NTP	• NTP Client • NTP Server			
SNTP	SNTP Client			
TFTP	• TFTP Client • TFTP Server			

Multicast Features

Multicast Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P

IGMP	• IGMP Proxy • IGMP V1,V2,V3
IGMP Snooping	• IGMP v1,v2 Snooping • IGMP V3 Snooping
MLD	MLD v1, v2
MLD Snooping	• MLD Snooping • MLD Snooping V2
MSDP	Supported
PIM-DMv4	Supported
PIM-SMv4	• PIM-SMv4 • PIM-SSMv4
PIM-SMv6	• PIM-SMv6 • PIM-SSMv6

High Availability

High Availability	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
DLDP	Supported			
VRRP	• IPv4 VRRP v2 • IPv4 VRRP v3 • IPv6 VRRP			
VRRP+	• IPv4 VRRP+ • IPv6 VRRP+			

Management Features

Management Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
gRPC	Supported			
NETCONF	Supported			

sFlow	Supported
SNMP	RMON (1, 2, 3, 9)
SSH	• SSHv1 • SSHv2

OAM Features

OAM Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
PoE	• PoE Port priority • Uninterruptible power supply upon warm start	NA	• PoE Port priority • Uninterruptible power supply upon warm start	• PoE Port priority • Uninterruptible power supply upon warm start

Routing Protocol Specification

Routing Protocol Specification	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
OSPFv2	Supported			
OSPFv3	Supported			
RIP	• RIP • RIPv2			
RIPNG	Supported			

Security Features

Security Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
802.1X	• MAC-based 802.1x authentication • Port-based 802.1x authentication			

AAA	Supported
CPP	Supported
IP SOURCE GUARD	• IP SOURCE GUARD • IPv6 SOURCE GUARD
SAVI	Supported
TACACS+	Supported
Web-based authentication	• HTTP Web-based authentication • HTTPS Web-based authentication
Global IPv4 MAC binding	Supported

System Features

System Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
USB	USB 2.0			

Capacity Specification

ACL and QoS

ACL and QoS	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Number of ACEs	Egress: 800 Ingress: 1750			

High Availability

High Availability	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
VSU	Number of VSU members: 8			

Layer 2 Features

Layer 2 Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Ethernet	Jumbo frame length: 9600			
G.8032	Layer 2 traffic convergence time: <=200ms			
MAC	Number of Global MAC Addresses : 16000 (for default)			

Layer 3 Features

Layer 3 Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
ARP	Maximum number of ARP entries: 4000			

Multicast Features

Multicast Features	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
Mcast	Number of IPv4 multicast routes: 1000			
Mcastv6	Number of IPv6 multicast routes: 900			

Routing Protocol Specification

Routing Protocol Specification	RG-CS61-10GT2MS-P	RG-CS61-24GT4MS	RG-CS61-24GT4MS-P	RG-CS61-48GT4MS-P
IPv4 routing	IPv4 routing table size: 6000			
IPv6 routing	IPv6 routing table size: 2000			

Order Information

The switch, expansion module, power module, and other components can be ordered as needed. Before ordering an expansion module or power module, please contact the online customer service personnel for the latest support information about the module.

Switches

Model	Description
RG-CS61-24GT4MS	24 x 10/100/1000BASE-T ports, 4 x 1GE/2.5GE SFP ports, fixed power supply
RG-CS61-48GT4MS-P	48 x 10/100/1000BASE-T ports, 4 x 1GE/2.5GE SFP ports, fixed power supply, PoE/PoE+ power supply, 370 W PoE power supply
RG-CS61-24GT4MS-P	24 x 10/100/1000BASE-T ports, 4 x 1GE/2.5GE SFP ports, fixed power supply, PoE/PoE+ power supply, 370 W PoE power supply
RG-CS61-10GT2MS-P	10 x 10/100/1000BASE-T ports, 2 x 1GE/2.5GE SFP ports, fixed power supply, PoE/PoE+ power supply, 125 W PoE power supply

Optical Transceivers and Cables

1GE

Model	Description
Mini-GBIC-GT	1000BASE-X to 1000BASE-T, copper SFP transceiver, RJ45, 100 m over Cat 5e/6/6a Mini-GBIC-GT. The port needs to be configured with auto-negotiation
CO-GE-SFP-SX-MM850	1000BASE-SX, SFP transceiver, 850 nm, Duplex LC, 500 m over MMF
CO-GE-SFP-LX-SM1310	1000BASE-LX, SFP transceiver, 1310 nm, Duplex LC, 10 km over SMF
MINI-GBIC-LH40-SM1310	1000BASE-LH, SFP transceiver, 1310 nm, Duplex LC, 40 km over SMF
MINI-GBIC-ZX80-SM1550	1000BASE-ZX, SFP transceiver, 1550 nm, Duplex LC, 80 km over SMF
GE-SFP-LX20-SM1310-BIDI	1000BASE-LX, SFP transceiver, Tx1310/Rx1550, BiDi LC, 20 km over SMF
GE-SFP-LX20-SM1550-BIDI	1000BASE-LX, SFP transceiver, Tx1550/Rx1310, BiDi LC, 20 km over SMF
GE-SFP-LH40-SM1310-BIDI	1000BASE-LH, SFP transceiver, Tx1310/Rx1550, BiDi LC, 40 km over SMF

GE-SFP-LH40-SM1550-BIDI	1000BASE-LH, SFP transceiver, Tx1550/Rx1310, BiDi LC, 40 km over SMF

2.5GE

Model	Description
2.5G-SFP-LX03-SM1310-BIDI-I	2.5GBASE-LX, SFP transceiver, TX1310/RX1550, BiDi LC, 3 km over SMF
2.5G-SFP-LX03-SM1550-BIDI-I	2.5GBASE-LX, SFP transceiver, TX1550/RX1310, BiDi LC, 3 km over SMF


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